Papahānaumokuākea Marine National Monument
Permit Application Cover Sheet

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

Summary Information

Applicant Name: Russell E. Brainard, Ph.D.
Affiliation: NOAA Pacific Islands Fisheries Science Center

Permit Category: Research
Proposed Activity Dates: 09/08/2008 - 10/12/2008
Proposed Method of Entry (Vessel/Plane): NOAA Research Vessel Hi'ialakai
Proposed Locations: Shallow water reefs (<30m) of the Monument including the reefs associated with: Kure Atoll, Pearl & Hermes Atoll, Midway Atoll, French Frigate Shoals, Lisianski Island, Laysan Island, Nihoa Island, Necker Island, Gardner Pinnacles and Maro Reef.

Estimated number of individuals (including Applicant) to be covered under this permit: 26

Estimated number of days in the Monument: 36

Description of proposed activities: (complete these sentences):

a.) The proposed activity would…
conduct reef assessment and monitoring activities throughout most of the major islands of the Papahānaumokuākea Marine National Monument. These efforts would contribute to continuing research providing scientific information needed to support ecosystem approaches to the management of coral reef systems of the Monument and areas across the Pacific region. The primary focus of the multi-institutional team of scientists, led by NOAA's Coral Reef Ecosystem Division, would focus on collaborating with local agencies to implement the Pacific Reef Assessment and Monitoring Program (RAMP).

b.) To accomplish this activity we would ….
use monitoring efforts including rapid ecological assessments of corals, macro-invertebrates, fish, and algae to species or genus level using multiple methods; spatial towed-diver surveys of benthic composition and the abundance and distribution of ecologically and economically important macro-invertebrate taxa and large fish; passive acoustic monitoring of biotic and anthropogenic sounds; and multi-platform oceanographic and water quality monitoring using shipboard surveys, moored instrument arrays, drifters, and satellite remote sensing.

c.) This activity would help the Monument by …
the use of consistent multi-disciplinary methods across this vast region allowing for an opportunity to perform bio geographic and ecological comparative analyses of diverse ecological, environmental, and oceanographic gradients. Patterns of variability of fish biomass, coral disease, diversity, and other reef metrics are paramount to assessing an ecological niche as valuable as Papahānaumokuākea Marine National Monument.

Other information or background: The Coral Reef Ecosystem Division (CRED) conducts integrated, multidisciplinary, ecosystem research, habitat mapping, and long-term monitoring of coral reef ecosystems in the U.S.-affiliated Pacific Islands. CRED's work is a key component of NOAA's Coral Reef Conservation Program (CRCP). CRED scientists describe, map, and monitor coral reef ecosystems. The program's approach is to apply a suite of standardized methods- including ecological assessments, oceanographic and water quality measurements, and benthic habitat mapping, to improve understanding of the spatial and temporal processes influencing the health of coral reef ecosystems throughout the region. The knowledge gained is shared with resource managers and various public stakeholders to improve decision-making for the long-term conservation and management of coral reef resources. In 2007 CRED scientists drafted the Coral Reef Ecosystem Monitoring Report for American Samoa, including information and summary analyses of fish, coral, invertebrates, algae, and oceanography for each island in American Samoa from survey cruises in 2002, 2004 and 2006. The Coral Reef Ecosystem Monitoring Report for the Hawaiian Archipelago will be completed in 2009.